

# **Building a discipline: the story of construction management**

---

Editors: Dave Langford and Will Hughes

**Contents**     **i**

**Acknowledgements**     **vii**

**List of figures**     **ix**

**About the authors**   **xi**

**Introduction: what is a discipline?**     **1**

---

Dave Langford, Professor Emeritus Glasgow Caledonian University

Codification   2

Paradigm development   3

Consensus   3

The Biglan model   3

---

**1 A short history of a long story**     **5**

---

Dave Langford, Professor Emeritus, Glasgow Caledonian University, Glasgow

Foreword to the chapter   5

Chinese construction 6

The Egyptians   7

The construction process   7

The labour process   8

The Greeks   9

The Romans   11

Medieval builders in Europe   13

The trades   14

The Industrial Revolution   17

Roads 17

---

Canals	18
Railways	19
Conclusion	21

---

## **2 Early foundations of the discipline: the post-WWII years 23**

---

Dave Langford, Professor Emeritus, Glasgow Caledonian University

## **3 Developments in construction education in the UK 27**

---

Professor Allan Ashworth, University of Salford

Introduction	27
Early beginnings 1960s	27
“Old” universities	27
Building technology vs construction management	28
Loughborough University	28
University of Reading	29
Growth in the 1970s	30
Education vs training	30
Approvals	31
CNAA	32
Lanchester Polytechnic	32
Struggles in the 1980s	32
Sponsored courses	33
CIOB and Lighthill	33
Renewal in the 1990s	34
Academic staff	34
Maturity in the 2000s	35
Text books	35
The way ahead	36

---

## **4 Institutions supporting the discipline 37**

---

Richard Fellows, Visiting Professor, University of Loughborough

Introduction	37
Supporting institutions (organisations)	39
Concluding discussion	49

---

## **5 Journal contributions to the discipline 51**

---

Mike Murray, Strathclyde University

Introduction 51

Communities of practice 53

The research assessment exercise (RAE): a prisoner's dilemma for the CM communities? 56

Construction Information Quarterly: a CM practitioners' journal? 57

The birth of modern CM practice and related journals 58

Have CM journals influenced industry practice? 60

Have CM journals influenced academic practice? 61

Use of CM journals to aid teaching and learning 63

Conclusion: what future for CM journals and a CMBOK? 64

---

## **6 Construction management around the world 69**

---

The Arab World 71

Mohammed Dulaimi, British University in Dubai

Australia 73

Professor Denny McGeorge, Emeritus Professor, University of Newcastle, Australia

Caribbean Region 78

Professor Mike Lewis, University of the West Indies

Chile and South America 86

Professor Alfredo Serpell, Catholic University of Chile

China 88

Professor Anita Liu, University of Loughborough

Professor He Bosen, Tianjin University

Professor Zhang Shuibo, Tianjin University

Croatia, the case of a country in transition 95

Professor Mariza Katavić, University of Zagreb

Milestones of development of Construction Management in Finland 101

Kalle Kähkönen, VTT Technical research Centre of Finland and Helsinki University of Technology

Professor Juhani Kiiras, Helsinki University of Technology

Japan 104

Tsunemi Watanabe, Kochi University of Technology

Will Hughes, University of Reading

Malaysia 113

Professor Abdul-Rashid Abdul-Aziz, Universiti Sains Malaysia, Penang, West Malaysia

Mastura Jaafar, Universiti Sains Malaysia, Penang, West Malaysia

The Netherlands 114

	Wilco Tijhuis, University of Twente	
Norway		117
	Tore I. Haugen, Norwegian University of Science and Technology	
Singapore		118
	Professor George Ofori, National University of Singapore	
South Africa		125
	P D Rwelamila, University of South Africa (UNISA)	
Sweden		133
	Jan Bröchner, Chalmers University	
United Kingdom		134
	Peter Brandon, University of Salford	
United States of America		138
	William F. Maloney, University of Kentucky	

## **7 Future of construction management 143**

---

Brian Atkin, Visiting Professor at Universities of Reading, Lund and Queensland University of Technology

**Author index 149**

**Subject index 153**